



STATE OF WASHINGTON
DEPARTMENT OF COMMUNITY,
TRADE AND ECONOMIC DEVELOPMENT

Washington Climate Challenge

Climate Advisory Team

Meeting #2

June 5, 2007

WA Departments of Ecology & Community Trade &
Economic Development (CTED)

Center for Climate Strategies

Ross & Associates

Welcome and Introductions

- New CAT members
- TWG Technical Facilitators

Agenda

- Western Regional Climate Action Initiative Briefing
- Climate Outcomes from Washington's 2007 Legislative Session
- Update on the Adaptation Working Groups
- Draft Washington Emissions Inventory and Forecast Review
- Technical Working Group Briefings
 - Agriculture
 - Forestry
 - Residential, Commercial, Industrial
 - Energy Supply
 - Transportation
- Next Steps for the CAT and TWGs
- Public Comment

Western Regional Climate Action Initiative (WCI)

- Was established in February 2007 by the governors of Washington, Oregon, Arizona, California and New Mexico, and has expanded to include Utah and British Columbia
- Partners will collaborate to identify, evaluate, and implement ways to reduce GHG emissions regionally
 - Develop regional GHG reduction goals
 - Design a multi-sector market-based mechanism to achieve the goals, such as a load-based cap and trade program, and
 - Participate in a multi-state registry to enable tracking, management, and crediting for entities that reduce their GHG emissions
 - Washington is participating in The Climate Registry
- Timeframe
 - August 2007: Development of regional goals
 - Oct. 2007: Market-based mechanism design begins
 - August 2008: WCI design work complete

The Climate Registry

- A collaborative effort to develop and manage a common GHG emissions reporting system
 - Enables tracking, management, and crediting for reductions
- Thirty-one states, including Washington, are charter members
- Members agree to work with The Climate Registry to:
 - Establish and endorse voluntary entity-wide GHG emissions reporting and verification
 - Identify a set of GHG emissions minimum data quantification standards to be recognized by members in both voluntary and mandatory reporting and emissions reduction programs, and
 - Incorporate those minimum data quantification standards into any mandated GHG reporting and emissions reduction program
- January 2008 - The Climate Registry is scheduled to begin accepting data

Coordination of the CAT with Regional Activities

- Create an ad hoc, self-selected committee of the CAT to:
 - Consider issues around multi-sector market-based mechanisms
 - Be a place where the State can solicit advice on issues raised at WCI, as needed
- **Summer/Fall 2007**
 - Educational webinars with ad hoc members to review and discuss key issues related to market mechanisms
 - Invited experts provide web-based presentation followed by interaction with CAT members
 - Tutorials will be designed to:
 - Develop a common understanding
 - Enable joint learning
 - Prepare the group to respond meaningfully to State requests for input as design of a market-based mechanism gets underway with WCI
 - TWG members and the public can observe; interaction reserved for CAT members

Coordination of the CAT, cont.

▪ **Fall - Winter 2007**

- CAT may be asked by the State to give its opinion on various WCI design issues, and/or choose to do so in its final report.
- The CAT might speak to a variety of issues, e.g.
 - Key principles of cap-and-trade
 - Key aspects of Washington's economy to consider
 - Key issues from a Washington perspective
- Consistent with the CAT's recommendation on other issues, consensus on any issue is preferred but not mandatory.
 - This approach recognizes the potential for a variety of opinions from individual CAT members and that the bulk of the WCI design work occurs in 2008

▪ **2008**

- The State will determine what kind of advisory process it wants to use after the CAT is finished. CAT can provide recommendation on how to accomplish this if it so chooses.

Proposed Market-Based Mechanism Tutorials Series

Session #1 (late June)

Introduction to market-based mechanisms

Session #2 (late July)

What key principles are emerging from other efforts?

Session #3 (late August)

What are some of the key issues of cap-and-trade, and what might cap-and-trade look like for Washington?

Session #4 (September)

What are the key approaches that might work best for Washington?

Senate Bill 6001

- *Mitigating the Impacts of Climate Change*
- Put climate goals into statute
- Includes a GHG performance standard for electric utilities
 - Allows for sequestration of emissions to meet standards
 - Requires Department of Ecology to write rules for the standard and for sequestration
 - Requires Energy Facility Site Evaluation Council to evaluate the sequestration plans for facilities under its jurisdiction
- Other bill provisions that relate to Energy Supply TWG are noted in Description of Catalog Items

House Bill 1303

- Wide ranging environmental and energy bill
 - Diesel bus retrofit, biofuels, green highways, energy and climate research
- Supports ECY and CTED stakeholder process in the Executive Order
- Provides funding to University of Washington Climate Impacts Group to work with ECY and CTED on adaptation
- Requires ECY and CTED vehicle electrification electric vehicles
- CTED, et al sorting out the implementation details

Preparation/Adaptation

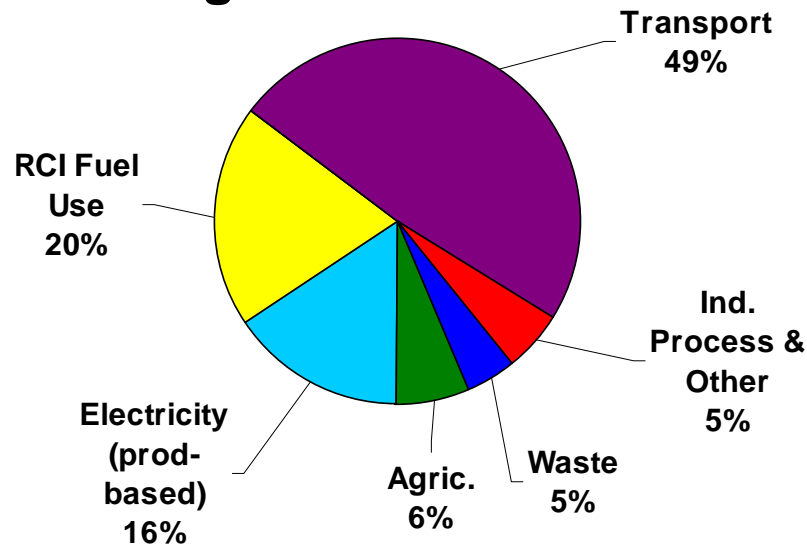
- Executive Order 02-07 directs ECY and CTED to work with other agencies and stakeholders to propose strategies for climate change preparation/adaptation
- Recommendations will be included in the final report of ECY and CTED to the Governor by February 7, 2008
- Working Groups are structured across five impact sectors
 - Forest Resources, Agriculture, Human Health, Fresh Water and Coastal/Infrastructure
- Support is being provided by UW's Climate Impacts Group
- CAT members are welcome to participate in this separate process

GHG Inventory and Projections

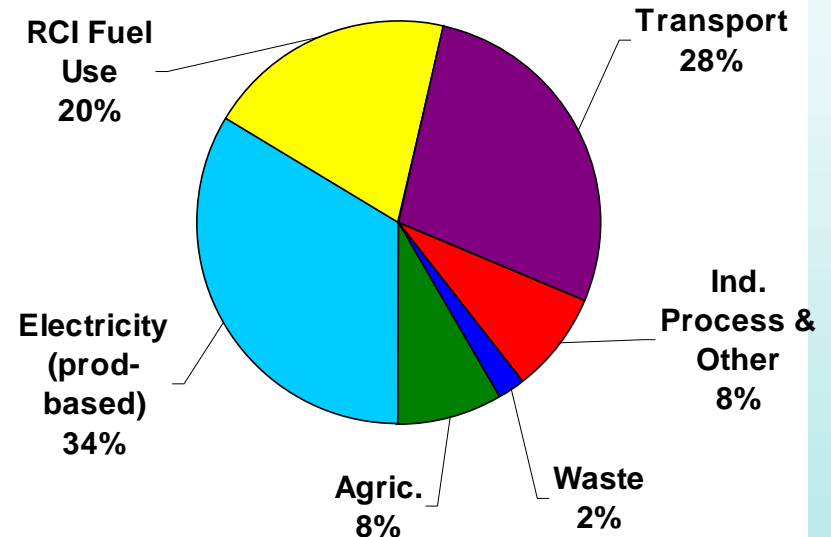
- Draft Inventory and Reference Case Projections (initial draft posted late April)
 - Inventory of historical emissions from 1990 to most recent data year (2000-2005, depending on sector) and projection to 2020
 - Ongoing input by TWGs and revisions underway by CTED, ECY, and CCS on issues such as:
 - Load (consumption)-based electricity emissions estimates
 - Forestry inventory estimates
 - New maritime emissions estimate
 - Revised draft to be posted in July/August

Washington & US Emissions By Sector, Year 2005 (draft)

Washington



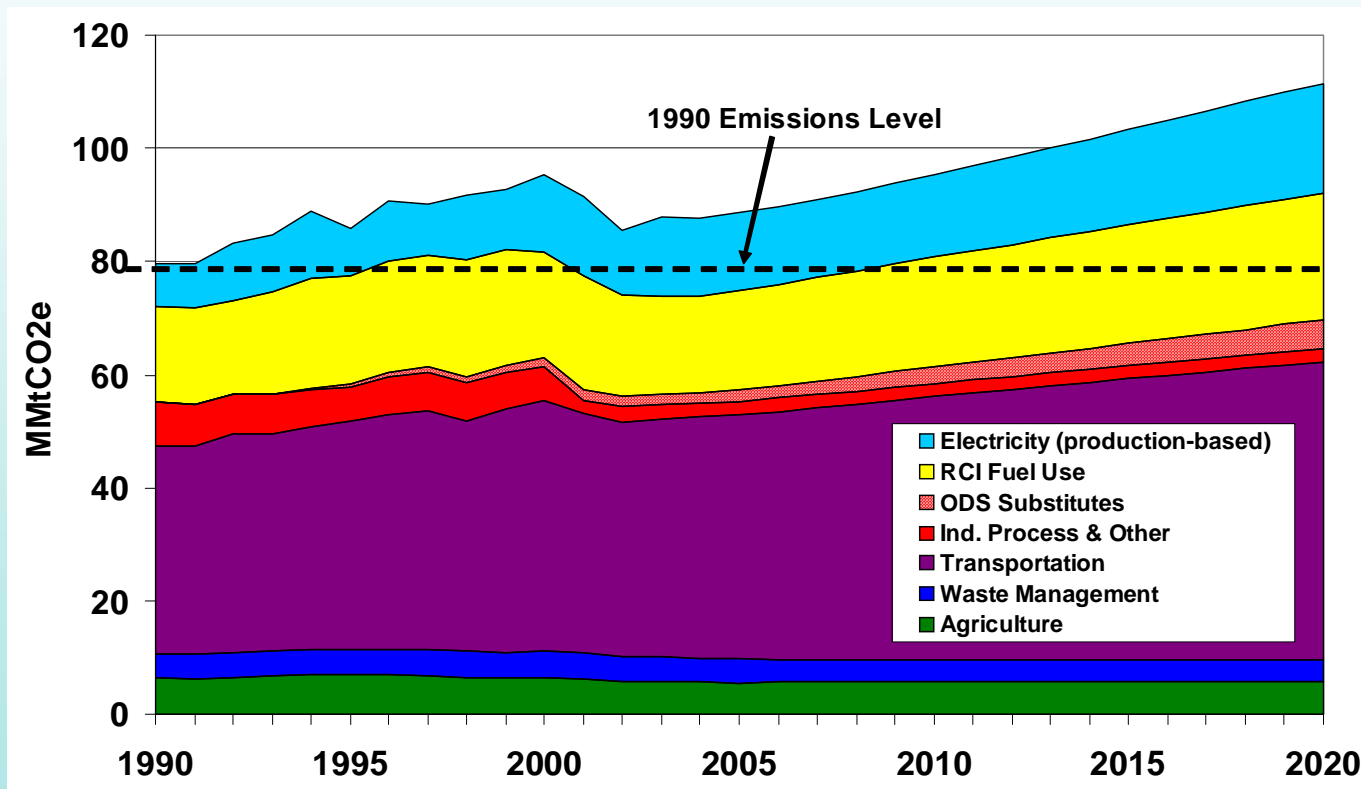
US



Industrial process emissions include emissions from Ozone Depleting Substances (ODS) substitutes

Washington Gross GHG Emissions By Sector (draft)

(includes production-basis electricity emissions*, excludes forestry and soil sequestration)



* - similar chart with load-based electricity emissions under development

Goals

- GHG emissions: 1990 levels by 2020; 25% below 1990 levels by 2035; 50% below 1990 levels by 2050
 - Based on gross emissions
 - Will track both gross and net emissions, and consider benefits of sequestration actions
 - Based on consumption (load) basis electricity emissions
 - Will track both consumption and production based electricity emissions
 - CAT process only quantifies through 2020 but recognizes some options will have greater contributions to longer-term targets
- Jobs: 25,000 clean energy sector jobs by 2020 (compared with 8,400 jobs in 2004)
 - Broader definition as low-GHG economy jobs
- Expenditures on fuel imported into the state: 20% reduction by 2020 (by developing Washington resources and supporting efficient energy use)

Ten Step Work Plan

1. *Develop initial GHG inventories and forecasts*
2. *Identify possible GHG mitigation options*
3. *Identify initial priorities for evaluation*
4. Evaluate supply potential, cost effectiveness; ancillary and feasibility issues as needed
5. Identify barriers, alternative policy design needs
6. Modify, add or subtract options as needed
7. Evaluate cumulative results of options (including job creation and fuel imports)
8. Iterate to consensus, with votes as needed
9. Aggregate options into implementation scenarios
10. Finalize recommendations and report language

Identifying Priorities for Analysis

- Each TWG reviewed and revised catalog of options (2nd TWG meeting, late May)
- CAT reviews, amends, and approves catalog (today)
- Each TWG identifies a preliminary set of priority options for further analysis by voting process and discussion at 3rd TWG meeting (mid-June)
 - Ballot sent by CCS to TWG members
 - Each TWG member identifies a number of priority options, adds comments as needed (for example, with regard to possible consolidation of policies, rationale for priorities, etc.)
 - CCS compiles results for discussion at next TWG call (week of June 18-22)
- CAT reviews/approves priorities at 3rd CAT meeting

Catalog of Actions

- Started with over 300 actions (existing, planned and proposed across US states)
- All sectors, wide variety of implementation mechanisms
- Includes key Washington actions to date
- Revised, commented, and expanded by TWGs
- CAT reviews, revises, adds to, approves catalog

Agriculture TWG

- An overview of the meetings to-date
- Categories of potential climate mitigation actions:
 - Production of fuels and electricity
 - Livestock
 - Agriculture crop production and urban/suburban landscapes
 - Land use management
 - Farming practices
 - (Municipal) Waste management strategies
 - Landfill gas strategies
 - Wastewater activities
- Review and revision of the draft catalog
- Addition of potential actions to the draft catalog
- Approval of the draft catalog

Forestry TWG

- An overview of the meetings to-date
- Categories of potential climate mitigation actions:
 - Production of fuels and electricity
 - Biomass protection and management
 - Wood products and waste
- Review and revision of the draft catalog
- Addition of potential actions to the draft catalog
- Approval of the draft catalog

Residential, Commercial and Industrial TWG

- An overview of the meetings to-date
- Categories of potential climate mitigation actions:
 - Energy efficiency programs, funds, and goals
 - Buildings
 - Appliance standards
 - Education and outreach
 - Pricing and purchasing
 - Customer-sited distributed energy, and combined heat and power
 - GHG emissions-specific goals and policies (including process emissions)
- Review and revision of the draft catalog
- Addition of potential actions to the draft catalog
- Approval of the draft catalog

Energy Supply TWG

- An overview of the meetings to-date
- Categories of potential climate mitigation actions:
 - Emissions policies and overarching items
 - Renewable energy and energy efficiency
 - Fossil fuel and nuclear electricity
 - Fuel production, processing, and delivery
 - Carbon capture and storage
 - Other energy supply options (transmission, distribution, “smart grid”, emissions disclosure, etc.)
- Review and revision of the draft catalog
- Addition of potential actions to the draft catalog
- Approval of the draft catalog

Transportation TWG

- An overview of the meetings to-date
- Categories of potential climate mitigation actions:
 - Vehicle technology
 - Vehicle operation
 - Alternative fuels
 - Smart growth
 - System efficiency and demand management
 - Non-road options
- Review and revision of the draft catalog
- Addition of potential actions to the draft catalog
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Decision Criteria

- Estimated GHG Reduction Potential (MMTCO₂e) by 2020
- Cost or Cost Saved Per Ton GHG Removed
- Contribution to Longer-Term Goals (2035/2050) (*not quantified*)
- Reduced Expenditures on Imported Fuels
- Job Creation
- Externalities
- Feasibility Issues

Policy Design Proposals

- TWGs develop initial policy option design (“straw proposals”) for selected priority policies for analysis (late June to mid July)
 - Design
 - Timing
 - Goals
 - Coverage
- TWG reviews and revises straw proposals at 4th TWG meeting (mid-late July)
- CAT reviews and revises straw proposals at 3rd CAT meeting (Aug 7)
- Between 3rd and 4th CAT meetings (Aug-Sept)
 - CCS works with TWG on initial analysis/quantification of approved straw proposals
 - TWG develops straw design proposals for remaining (or any new) priority options

Policy Option Template

- To be developed for each priority option
- Includes:
 - Policy Description (Concept)
 - Policy Design (Goals, Timing, Coverage)
 - Implementation Methods
 - Related Programs and Policies
 - Estimated GHG Savings and Costs Per MMTCO₂e
 - Data Sources, Methods and Assumptions
 - Key Uncertainties
 - Contribution to Long-Term Goals
 - Additional (non-GHG) Benefits and Costs, as Needed
 - Job Creation
 - Reduced Fuel Import Expenditures
 - Feasibility Issues, as Needed
 - Status of Group Approval
 - Level of Group Support
 - Barriers to Consensus, if any

Next CAT Meeting

- August 7, 2007 in SeaTac, WA
- Agenda:
 - Final agreement on inventories and baseline forecasts
 - Approval of TWG lists of initial policy priorities for analysis
 - Review and approval of first set of straw proposals for policy design
 - Briefing on quantification methods
 - Discussion of quantification principles and guidelines, and key assumptions for TWG analysis of policy options
 - Updates on working groups

Public Comment

**For more information
and to submit written comments**

[www.ecy.wa.gov/climate change](http://www.ecy.wa.gov/climatechange)